## 5.7 TRAFFIC

### 5.7.1 Affected Environment

#### *Regional Transportation System*

The main vehicular traffic access routes into SBMR are via H-2 from the Ewa/Honolulu area, Kamehameha Highway and Kunia Road from the Ewa District, and Kamananui Road and Wilikina Drive from the North Shore District. H-1 provides a connection between H-2 and Hickam Air Force Base. These sections of H-1 and H-2 were designed to carry heavy vehicle traffic from SBMR to HAFB for deployment and can handle large heavy vehicles.

Trimble Road, Kolekole Avenue, and Lyman Road are the primary circulation routes through SBMR. These roadways traverse SBMR in an east-west orientation.

#### *Local Transportation System*

East of Beaver Road, Trimble Road is a four-lane divided roadway. The westbound approach to Beaver Road has a separate right turn only lane and a shared left and through lane. West of Beaver Road, Trimble Road is two-lane and two-way. The eastbound approach of Trimble Road to Beaver Road is a single lane for left turns, through traffic, and right turns.

Beaver Road is two-lane and two-way and runs north-south along the east boundary of the project; it terminates at Trimble Road. Hendrich Street is the extension of Beaver Road south of Trimble Road; it provides access to the residential area south on Trimble Road and is also a two-lane two-way street.

##### *Schofield Barracks – Main Post*

Two main roadways serve Schofield Barracks. These roadways are Foote Avenue/Trimble Road and Kolekole Avenue. Both roadways traverse the main compound and are oriented in an east-west direction.

Foote Avenue connects the main gate with the central area, which contains the commercial area and barracks. West of the commercial area, Foote Avenue turns into Trimble Road, which continues west to the training areas. Generally, Foote Avenue/Trimble Road is a four-lane roadway between the main gate and Beaver Road, which is approximately 1.2 miles west of the commercial area.

Generally, traffic levels of service are good. There are two areas that are periodically congested. The first is the commercial area. There are numerous commercial activities in this area that attract both vehicular and pedestrian traffic. The commercial area is being redeveloped and many of these circulation issues are being addressed. Specific issues are capacity, traffic calming, and parking.

The second area of congestion is at the gates along Kunia Road, especially during periods of heightened security, when traffic will back up onto Kunia Road. Redesigning the gate areas to increase their capacity is the only way to contend with this.

### *Schofield Barracks East Range*

There are few roadways in the East Range, but traffic circulation appears to be good because no traffic issues have been reported.

### *Wheeler Army Airfield*

There are two entrances to WAAF from Kunia Road. The main roadway serving the airfield is Wright Avenue, which traverses it in a southwest-northeast orientation. A traffic study for new housing completed a few years ago did not identify any traffic-related problems that required mitigation.

### *South Range Acquisition Area*

The SRAA is bounded by Kunia Road on the east and by the southern boundary of SBMR on the north; the remaining area is bounded by undeveloped land. Two roadways lie within and adjacent to the SRAA.

### *Kunia Road*

Kunia Road is a state highway along the east boundary of the proposed training area. It connects SBMR to the north and Waipahu to the south. Kunia Road is two-lane and two-way, and the posted speed limit is 35 miles per hour (56 kilometers per hour) north of the SRAA.

Safety along Kunia Road may be an issue. Long sections have been striped and signed to prohibit passing because of limited sight distances. During field reconnaissance, many drivers were observed ignoring these restrictions. Honolulu Police Department vehicles operate speed patrols in the area. At times there may be hazards due to smoke from agricultural burns adjacent to the road. Pineapple and other agricultural burns are permitted in the fields adjacent to the roadway, but signs are required to alert drivers to the possibility of reduced visibility during the burn. These are usually orange construction area signs, advising drivers to use caution due to smoke and dust.

As a policy, neither HPD nor HDOT will provide accident statistics or data citing liability concerns, so there is no available historical data on the number of accidents related to speed along this roadway. However, there are frequent speed traps set up along the roadway, so it appears that HPD is enforcing the posted speed limit. The Proposed Action would have no impact on the average vehicular speed along this roadway. The Hawai'i Department of Transportation has a 24-hour traffic count station along Kunia Road, south of Foote Gate, that provides traffic data. The latest counts were performed during April 2001. Data from this count station indicate that the average traffic along Kunia Road is approximately 16,300 vehicles per day. The morning peak hour is between 8:00 AM and 9:00 AM, when volume is approximately 1,120 vehicles per hour. The afternoon peak hour is between 3:30 PM and 4:30 PM, when volume is approximately 1,320 vehicles per hour.

The traffic data also indicated that the peak hour k-factors (the percentage of daily traffic during the peak hour) are 7.5 percent in the morning and 8.0 percent in the afternoon. These are lower than usual, indicating that hourly traffic volumes are relatively consistent during the day, with no dominant peak periods.

### *Road to Kunia*

This roadway is unpaved and unmarked and connects the proposed training area on the SRAA to Kunia Road approximately 1.2 miles (2 kilometers) south of Foote Gate. The roadway is used as a plantation road and provides access to a small military-related facility approximately 200 feet (61 meters) west of Kunia Road.

## 5.7.2 Environmental Consequences

### *Summary of Impacts*

A summary of traffic impacts at SBMR and WAAF is shown in Table 5-20. Impacts from intersection operations, roadway segment operations, construction traffic, and parking would be less than significant under the Proposed Action and under the Reduced Land Acquisition Alternative. These impacts would result from building and operating the VFTF, the Motor Pool, the Tactical Vehicle Wash, the Multiple Deployment Facility, and QTR2 and from acquiring and using the SRAA, which would increase local traffic volumes during peak periods and affect intersection operations and roadway segment operations. There would be no traffic impacts under No Action.

**Table 5-20**
**Summary of Potential Traffic Impacts at SBMR/WAAF**

| Impact Issues | Proposed Action | Reduced Land Acquisition | No Action |
|---|---|---|---|
| Intersection operations | ⊙ | ⊙ | ○ |
| Roadway segment operations | ⊙ | ⊙ | ○ |
| Construction traffic | ⊙ | ⊙ | ○ |
| Parking | ⊙ | ⊙ | ○ |

In cases when there would be both beneficial and adverse impacts, both are shown on this table. Mitigation measures would only apply to adverse impacts.

LEGEND:

⊗ = Significant
⊘ = Significant but mitigable to less than significant
⊙ = Less than significant
○ = No impact
\+ = Beneficial impact
N/A = Not applicable

### *Proposed Action (Preferred Alternative)*

Under the Proposed Action, 1,005 vehicles would be used, an increase of 346 vehicles. Strykers would be used at the BAX and urban assault course for off-road training. Troops would continue to be transported in trucks to the ranges. Strykers would train on the BAX at up to a company level, which would include up to 10 trucks and 21 Strykers. New parking lots are proposed. During emergencies, the public would have access to military vehicle trails.

### *Less than Significant Impacts*

*Intersection operations*. There are numerous projects proposed within SBMR and WAAF, and one land acquisition project. Those with traffic impacts expected to be less than significant are summarized below. Helemanō Trail is discussed in Section 7.7.

While no mitigation is required for project impacts on traffic congestion, the Army will operate a public Internet Web site that lists a schedule of upcoming USARHAW activities, including training and public involvement projects. Subject to force protection measures and other security measures, the site would contain USARHAW training and convoy schedules, community projects the USARHAW is involved in, any USARHAW activity or function that the public could attend, any general USARHAW news that might be of interest to the public, and USARHAW services available to the public.

### *Virtual Fighting Training Facility*

The VFTF would have the capacity to accommodate 50 trainees plus administrative staff. The increase in traffic would be below the recommended threshold of 100 vehicles per hour in the peak direction for a traffic impact analysis (ITE 1991, 5). Thus, impacts on intersection operations would be less than significant.

### *Motor Pool Maintenance Shops*

Traffic into and out of the motor pool would consist of two components. The first is vehicles entering and leaving the facility for maintenance and storage. All vehicles assigned to SBCT would be parked in the motor pool. These vehicles would typically arrive and depart during off-peak hours and therefore would not affect peak hour levels of service. Additionally, the facility would be located in the SRAA and would be immediately adjacent to the training area; therefore, vehicles would not use major roadways in the area.

The second component is personnel assigned to the motor pool. Traffic associated with employees would typically occur during peak traffic periods. The exact number of personnel that would be assigned to this facility has not been determined. The traffic impacts would be less than significant if the maximum number of personnel assigned to this facility (per shift if applicable) is 100 or fewer. Because the facility is relatively isolated, there are no unique factors that would result in a significant traffic impact.

### *Tactical Vehicle Wash Facility*

This facility is relatively isolated and located in SBER. The capacity of the facility would be 10 vehicles per hour. The impact of 10 vehicles per hour is well below the threshold for a significant impact; therefore, this impact would be less than significant.

### *South Range Acquisition Area*

The SRAA involves the use of a large tract of land south of and adjacent to SBMR. Because the land tract abuts SBMR, traffic between SBMR and the SRAA would not be on public roadways but on connecting roadways within the boundary of SBMR and the SRAA. Use of the SRAA for military training would require closing an unpaved road to Kunia that few people, if any, use. The road may be used for training. Therefore, traffic impacts would be less than significant.

### *Qualification Training Range 1*

This project is the consolidation of five ranges into one modernized facility, which would be in a relatively isolated area north of the Trimble Road/Beaver Road intersection. Troops would be transported to and from the complex via truck convoy, which would be scheduled

for non-peak traffic periods. Traffic into and out of the complex would be rerouted from the ranges. No net increase in hourly traffic volumes is anticipated; therefore, traffic impacts would be less than significant.

### *Qualification Training Range 2*

QTR2 would be located in the SRAA. As with QTR1, troops would be transported to and from the range via truck convoy, which would be scheduled for non-peak traffic periods. Traffic into and out of the complex would be rerouted from the ranges. No net increase in hourly traffic volumes is anticipated; therefore, traffic impacts would be less than significant.

### *Multiple Deployment Facility*

Except for a major exercise, traffic into and out of this facility would be for training exercises. The maximum number of hourly vehicles would be limited by the number of vehicles in the convoy. Traffic between SBMR and the Multiple Deployment Facility would cross Kunia Road. The Lyman Gate of SBMR and the Kunia Gate of WAAF would be used; there are no signals at either of these intersections. Under the current configuration, traffic across Kunia Road must be restricted to non-peak periods, or else the activity would adversely affect peak-hour traffic flows along Kunia Road. However, the SBMR DPW will implement a project during the summer of 2003 to reroute the road to WAAF Kunia Gate so it is directly across from Lyman Gate. A traffic light will be added on Kunia Road between the two gates. This traffic signal will make it possible to travel during peak hours without affecting traffic. Therefore, traffic impacts would be less than significant.

*Roadway segment operations.* The maximum number of vehicles per convoy would be 24. Convoys would be sequenced at 15- to 30-minute intervals, so the maximum hourly volume would be 96 vehicles per hour. Convoys would be scheduled during non-peak traffic hours, thus reducing potential impacts on peak-hour traffic conditions. The identified impact would be less than significant, and no mitigation would be necessary.

Before the Helemanō Trail is constructed, all SBCT military vehicles would use public roadways to access DMR and KTA. The discussion of Helemanō Trail is included in Section 7.7.

*Construction traffic*. The construction associated with the Proposed Action would generate additional traffic from worker vehicles and trucks, but construction traffic would be temporary and less than significant.

To minimize traffic impacts on the surrounding community during construction, a construction traffic management program would be implemented. The program would stagger work hours to reduce impacts from construction workers during peak hours, would identify truck routes to limit truck traffic to major streets, and would designate parking for construction workers. Because project traffic would not significantly affect operations at the intersections and street segments in the project vicinity and traffic is generally free flowing, the interim construction worker traffic impacts would not be significant. No mitigation would be required.

*Parking*. The Proposed Action would result in increased parking demand associated with proposed facilities and additional personnel assigned to SBMR. The number of parking spaces would be determined by the proposed uses of the buildings. Therefore, as individual buildings are designed, the number of parking spaces required to accommodate the anticipated number of employees and visitors would be determined. The parking demand is usually based on the square footage of the building or the estimated number of employees and visitors that would use the building.

Because the number of parking spaces required would be determined by the buildings that they provide parking for, additional parking would be required only for new facilities. For example, if new personnel are assigned to existing housing, the existing parking facilities would accommodate them. If new housing were constructed, parking would be designed and constructed according to standards. (The number of parking spaces per housing unit is typically determined by the number of bedrooms.)

All on-street construction should be performed during off-peak hours. Traffic control plans should be designed and coordinated with Military Police responsible for traffic management. Traffic control officers, or other uniformed personnel, should be assigned to assist with traffic control during on-street construction activities.

### No Impacts

*Intersection operations*. Projects with no expected impacts on traffic are summarized below.

#### Urban Assault Course Training Facility

Troops would be transported to this facility in truck convoys, which would follow standard procedures that limit the number of vehicles per hour. Parking facilities for the transport trucks would be provided. Traffic would be within SBMR and therefore would have no impact on public roadways.

#### Range Control Facility

This new facility would accommodate staff currently working in separate buildings. Because there is no proposed increase in staff size, peak hour traffic volumes would not change, and no impacts would result.

#### Battle Area Complex

As with the urban assault course, the BAX supports off-road vehicle training. Troops would be transported by truck convoy within SBMR. The maximum number of vehicles per convoy would be limited by standard convoy procedures. There would be no traffic on public roadways; therefore, no impacts would result.

#### Fixed Tactical Internet

This project consists of communication devices. There would be no traffic impact because there is no traffic associated with the project.

*Upgrade Wheeler Army Airfield for C-130 Aircraft*

This project would upgrade an aircraft facility. No additional peak-hour traffic would result from this action.

*Roadway segment operations*. Roadway segment operations at SBMR would continue to be at acceptable levels under the Proposed Action including convoy activity between SBMR and HAFB. The Stryker vehicle is well within the design standards for these highways. Therefore there would be no impacts of the Proposed Action on roadway segment operations, and no mitigation would be required.

### *Reduced Land Acquisition Alternative*

*Less than Significant Impacts*

The impacts from Reduced Land Acquisition would be the same as for the larger expansion described under the Proposed Action. The one difference would be a lessened impact on intersection operations because the road to Kunia connecting the SRAA to Kunia Road would not be closed to public access.

### *No Action Alternative*

*No Impacts*

Under No Action, impacts related to traffic at SBMR would continue at their current levels.